



Information Science and Technology Institute Presentation



Ciera Jaspan
Software Engineering
Carnegie Mellon University

Designing Software Frameworks for HPC

Thursday, June 24, 2010

11:00 AM - 12:00 PM

**Los Alamos Research Park, Suite 301 (New Mexico
Consortium), Conference Rm. 32**

Abstract: Software frameworks have gained a large following in the object-oriented and web-based communities due to their large code reuse benefits. A well designed framework allows many developers to reuse and extend a well-established design for new projects and promotes a sense of community around a common infrastructure. These benefits are not limited to the OO and web-based communities though; software frameworks could (and already has) provide the same benefits for the HPC community. In this session, I'll provide advice on when to use or create a software framework, how to design a software framework, and how to evolve legacy codebases into a more modern software frameworks.

Note from Steve Painter, HPC-1 Group Leader: We have been collaborating with Ciera Jaspan (PhD candidate at CMU) on software frameworks. She will be here to discuss her work, so please mark your calendars.

She will cover some examples from what she's learned while working with Open|SpeedShop and Open MPI and would welcome examples and interaction from the audience. If there is interest, she can meet with smaller groups in the afternoon starting at 2:00 PM.



**For more information contact Steve Painter, HPC-1 Group Leader, 665-6288, swp@lanl.gov.
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the Institute for Reliable High Performance Information Technology (IRHPIT)—**